

an adhering component capable of fastening the performing component to a tissue such that the radiance source and detector are facing and contiguous with the tissue;

wherein, when operative, the adhering component fastens the performing component to the tissue to the extent that the detector only receives rays which are transmitted through or reflected from the tissue".

4. A sensor according to claim 1 wherein the adhering component is formed as part of the performing component and adheres the performing component to the tissue.

9. A sensor according to claim 8 wherein the partition further surrounds either the radiance source or the detector or both.

13. A system for radiance based diagnostics comprising:
a sensor; and
an electronic circuit in communication with the sensor components and capable of controlling the sensor components operation;

wherein the sensor comprises:

a performing component comprising at least one radiance source for radiating a tissue and at least one detector for detecting rays emitted from said radiance source; and
an adhering component being capable of fastening the performing component to a tissue such that the radiance source and detector are facing and contiguous with the tissue,

a4 wherein, the adhering component fastens the performing component to the tissue to the extent that the detector only receives rays which are transmitted through or reflected from the tissue.

a5 21. A system according to claim 17 wherein the partition further surrounds either the radiance source or the detector or both.

a5 22. A system according to claim 13 wherein the sensor further comprises a controlling device capable of sensing and responding to external conditions and which controlling device is capable of being in communication with the sensor components, the electronic circuit or both.

a6 (Please add the following claims:

33. A sensor, for radiance based diagnostics, comprising

 a performing component comprising at least one radiance source for radiating a tissue and at least one detector for detecting rays emitted from said radiance source;

 an adhering component being capable of fastening the performing component to a tissue such that the radiance source and detector are facing and contiguous with the tissue; and

 a controlling device, said controlling device being a pressure or proximity detector configured to enable sensor operation when the performing component is fastened to the tissue to the extent that the detector receives only rays which are transmitted through or reflected from the tissue.

34. A system for radiance based diagnostics comprising:

 a sensor; and

an electronic circuit in communication with the sensor components and capable of controlling the sensor components operation;

wherein the sensor comprises:

a performing component comprising at least one radiance source for radiating a tissue and at least one detector for detecting rays emitted from said radiance source;

an adhering component being capable of fastening the performing component to a tissue such that the radiance source and detector are facing and contiguous with the tissue; and

a controlling device, said controlling device being a pressure or proximity detector configured to enable sensor operation when the performing component is fastened to the tissue to the extent that the detector receives only rays which are transmitted through or reflected from the tissue.

35. A system for radiance based diagnostics comprising:

a sensor; and

an electronic circuit in communication with the sensor components and capable of controlling the sensor components operation;

wherein the sensor comprises:

a performing component comprising at least one radiance source for radiating a tissue and at least one detector for detecting rays emitted from said radiance source;

an adhering component being capable of fastening the performing component to a tissue such that the radiance source and detector are facing and contiguous with the tissue; and